

Serial No. 10/714,708

REMARKS

This amendment is responsive to the official action dated April 7, 2004.

Claims 1-20 were pending in the application. Claims 1-20 were rejected. No claims were allowed by the Examiner.

By way of this amendment, the Applicant has amended Claims 11 and 15. Claims 1-10, 12-14 and 16-20 remain unchanged.

Accordingly, Claims 1-20 are currently pending.

I. **OBJECTION TO CLAIMS**

The Examiner objected to claim 15 because the use of the term enclosure was unclear. The Applicant has amended the claim to clearly define the scope of the claim by eliminating the terminology enclosure in favor of the previously defined term, flashlight head. Applicant accordingly believes that this basis for objection has been removed and the objection traversed. Withdrawal of this objection is requested.

II. **REJECTION OF CLAIMS UNDER 35 USC 102**

Claims 15-20 were rejected under 35 USC 102(e) as being anticipated by US Patent No. 6,086,218 (Robertson). The Examiner stated that the Robertson reference discloses a signal light having a tubular housing, a bottom wall, a side wall, and an end wall in the flashlight head with a bore for receiving an LED and a mounting board and that the cited reference anticipated every element of the present invention and renders the present claims unpatentable.

Claim 15, as amended discloses a flashlight with a separate and unique head assembly that has an enclosure with an end wall and an aperture extending fully through the end wall from the interior of the enclosure to the exterior of the enclosure. When the mounting board with the LED mounted thereon is installed into the head enclosure, the end of the LED extends through the aperture and is exposed to the exterior environment.

Serial No. 10/714,708

This can be contrasted to the Robinson reference wherein the LED's and the mounting board are fully encased within the housing element. None of the LED's extend into a bore in the end wall of the enclosure and none of the LED's are exposed to the exterior environment surrounding the light.

Since the present invention includes elements that are not shown or disclosed within the Robinson reference cited by the Examiner, the reference cannot anticipate the present invention. Accordingly, this rejection can no longer be maintained. Withdrawal of this rejection is respectfully requested.

III. REJECTION OF CLAIMS UNDER 35 USC 103

Claims 11-14 were rejected under 35 USC 103(a) as being unpatentable over US Patent No. 6,366,028 (Werner et al.) in view of US Patent No. 6,095,661 (Lebens). The Examiner has stated that Werner teaches a flashlight having a tubular sidewall wherein the sidewall and end wall define an open end to the enclosure, a mounting board inside the housing with an LED mounted on the board. The Examiner further stated that although Werner does not demonstrate a plurality of LED's in an array, Lebens shows an assembly that includes a plurality of lights in an array and that the present invention is obvious in light of the combination of these references.

The present invention however discloses a lensless flashlight head assembly and utilizes a specific relationship between the several structural elements to arrive at a novel flashlight assembly that is extremely durable as resistant to damage.

The Werner reference illustrates a flashlight with an LED extending through an aperture in the head. The junction between the LED and the aperture is sealed by the use of a small rubber O-ring seal. While not called out within the specification, this seal is clearly visible and identifiable by any person skilled in the art by studying the junction point of the LED and the aperture in Fig. 2. This manner of providing a seal has a great number of drawbacks as compared to the flashlight head of the present application. These O-rings must have a very small dimension in order to form a seal around the LED.

Serial No. 10/714,708

The assembly process of a flashlight having such a small element is greatly complicated by the need to install and handle such a small seal. By utilizing an array of LED's, as is claimed in Claim 2 of the present invention, this particular method would become so costly and unreliable that the flashlight would not be worth manufacturing.

Further, as can be seen in Figs. 1 and 2 of the Werner reference, the LED extends fully out of the aperture wherein both the end and the sides of the LED are fully exposed to the exterior environment. LED's are formed using malleable leads and have an easily damages polymer packaging material. In the configuration shown in Werner, the package of the LED is greatly exposed and subject to possible damage from impacts from numerous directions. In addition to providing little to no protection against impacts against the LED, the LED is also supported almost entirely by the contact leads. As stated above, the contact leads are malleable silver plated copper and are easily bent and broken. Any lateral or glancing impact against the LED in the Werner device would cause the LED to permanently deflect. In this manner the LED would no longer be centered in the aperture causing deterioration in the performance of the light and a potential failure in the seal. If the impact were severe enough, it may break one of the leads of the LED leading to a complete failure of the light

Similarly, Lebens, while showing a circular array of LED's, provides no protection for the LED's. In this configuration they may suffer damage from the slightest lateral impact. Further, this type device usually relies on a brittle potting compound material to retain the array of LED's in place. Lateral impacts could easily result in cracking the potting compound and causing an overall failure of the entire light.

The present invention as amended however includes specific structure and limitations that are not disclosed in the cited references. Specifically, the Applicant has amended the claims to require that the apertures in the end wall have a depth that is approximately equal to the length of the optical package portion of the LED. These apertures in the end wall of the housing into which the LED's are received support and protect the LED. The LED's are nearly completely shielded against impact from any angle other than an impact directly from the front. Even in such a case, the object

Serial No. 10/714,708

impacting the light would have to be small enough to enter the aperture of the head. In this manner, the head is virtually indestructible and resistant to any type of rough handling. The LED's cannot be laterally displaced in the present invention thereby protecting the polymer package against damage from shear forces and assuring that no force can be transferred to the fragile LED leads.

The Applicant has amended the claims to clearly describe and highlight these differences in the present invention as compared to the prior art references of record. Specifically, the Applicant has redefined the aperture in the end wall so that is clearly a distinct and separate element having a depth equal to the length of the LED optical portion. Clearly, as can be seen in the drawings and as is shown in the drawings, the optical portion of the LED extends through the aperture and is nearly entirely shielded within the end wall of the housing and is exposed to the exterior of the device only at the very end of the LED. In contrast, the optical portion of the LED in both of the cited references is fully exposed and vulnerable to lateral forces applied to the LED optical package.

Since both the Werner and Lebens references either alone or in combination do not disclose the subject matter of the present invention, they cannot render the present invention obvious. More specifically, is a person skilled in the relevant art combined the cited references, they would still not produce the device disclosed in the claims of the present invention. Accordingly, the present invention cannot be considered obvious in view of the cited references and withdrawal of this rejection is requested.

IV. DOUBLE PATENTING REJECTION

The Examiner has rejected the present invention under the judicially created doctrine of obviousness-type double patenting over US Patent No. 6,626,556 (Galli). The cited patent and the present application are commonly owned. Should the subject matter of the present invention be deemed patentable, the Applicant will prepare and file a timely terminal disclaimer in compliance with 37 CFR 1.321(c). Accordingly, the

Serial No. 10/714,708

Applicant believes that this rejection has been traversed. Withdrawal of this rejection is requested.

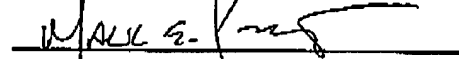
V. CONCLUSION

Accordingly, claims 1-20 are believed to be in condition for allowance and the application ready for issue.

Corresponding action is respectfully solicited.

PTO is authorized to charge any additional fees incurred as a result of the filing hereof or credit any overpayment to our account #02-0900.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark E. Tetreault', is written over a horizontal line.

Mark E. Tetreault, Esq.
Reg. No. 48,289

BARLOW, JOSEPHS & HOLMES, Ltd.
101 Dyer Street, 5th Floor
Providence, RI 02903
(401) 273-4446 (tel)
(401) 273-4447 (fax)
met@barjos.com